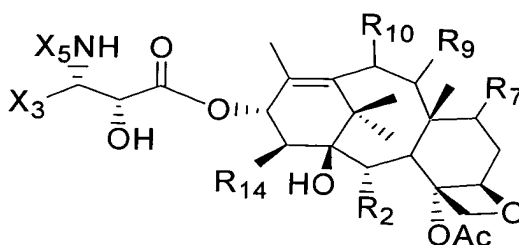


Claims

1. A taxane having the formula:



5

wherein

- 10 R_2 is acyloxy;
 R_7 is hydroxy;
 R_9 is keto, hydroxy, or acyloxy;
 R_{10} is carbamoyloxy;
 R_{14} is hydrido or hydroxy;
 X_3 is substituted or unsubstituted alkyl, alkenyl, alkynyl, phenyl or heterocyclo, wherein alkyl comprises at least two carbon atoms;
 X_5 is $-\text{COX}_{10}$, $-\text{COOX}_{10}$, or $-\text{CONHX}_{10}$;
15 X_{10} is hydrocarbyl, substituted hydrocarbyl, or heterocyclo; and
Ac is acetyl.

2. The taxane of claim 1 wherein R_{10} is $R_{10a}R_{10b}\text{NCOO}-$ and R_{10a} and R_{10b} are independently hydrogen, hydrocarbyl, substituted hydrocarbyl, or heterocyclo.

3. The taxane of claim 2 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_2 - \text{C}_8$ alkenyl, or $\text{C}_2 - \text{C}_8$ alkynyl.

4. The taxane of claim 2 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_2 - \text{C}_8$ alkenyl, or $\text{C}_2 - \text{C}_8$ alkynyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is substituted or unsubstituted $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_2 - \text{C}_8$ alkenyl, or $\text{C}_2 - \text{C}_8$ alkynyl.

5. The taxane of claim 2 wherein X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

6. The taxane of claim 2 wherein R_{14} is hydrido.

7. The taxane of claim 6 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
8. The taxane of claim 6 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
9. The taxane of claim 6 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
10. The taxane of claim 2 wherein R_2 is benzoyloxy.
11. The taxane of claim 10 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
12. The taxane of claim 10 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
13. The taxane of claim 10 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
14. The taxane of claim 2 wherein R_{14} is hydrido and R_9 is keto.
15. The taxane of claim 14 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
16. The taxane of claim 14 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

17. The taxane of claim 14 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.
18. The taxane of claim 2 wherein R_2 is benzoyloxy and R_9 is keto.
19. The taxane of claim 18 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
20. The taxane of claim 18 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-\text{COOX}_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
21. The taxane of claim 18 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.
22. The taxane of claim 2 wherein R_{14} is hydrido and R_2 is benzoyloxy.
23. The taxane of claim 22 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
24. The taxane of claim 22 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-\text{COOX}_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
25. The taxane of claim 22 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.
26. The taxane of claim 2 wherein R_{14} is hydrido, R_9 is keto, and R_2 is benzoyloxy.

27. The taxane of claim 26 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
28. The taxane of claim 26 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
29. The taxane of claim 26 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
30. The taxane of claim 1 wherein R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen and the other is hydrocarbyl, substituted hydrocarbyl, or heterocyclo.
31. The taxane of claim 30 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
32. The taxane of claim 30 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
33. The taxane of claim 30 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
34. The taxane of claim 30 wherein R_{14} is hydrido.
35. The taxane of claim 34 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
36. The taxane of claim 34 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

37. The taxane of claim 34 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

38. The taxane of claim 30 wherein R₂ is benzoyloxy.

39. The taxane of claim 38 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

40. The taxane of claim 38 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

41. The taxane of claim 38 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

42. The taxane of claim 30 wherein R₁₄ is hydrido and R₉ is keto.

43. The taxane of claim 42 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

44. The taxane of claim 42 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

45. The taxane of claim 42 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

46. The taxane of claim 30 wherein R₂ is benzoyloxy and R₉ is keto.

47. The taxane of claim 46 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
48. The taxane of claim 46 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
49. The taxane of claim 46 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
50. The taxane of claim 30 wherein R_{14} is hydrido and R_2 is benzoyloxy.
51. The taxane of claim 50 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
52. The taxane of claim 50 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
53. The taxane of claim 50 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
54. The taxane of claim 30 wherein R_{14} is hydrido, R_9 is keto, and R_2 is benzoyloxy.
55. The taxane of claim 54 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
56. The taxane of claim 54 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

57. The taxane of claim 54 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

58. The taxane of claim 1 wherein R₁₀ is R_{10a}R_{10b}NCOO-, one of R_{10a} and R_{10b} is hydrogen and the other is substituted or unsubstituted C₁ - C₈ alkyl, phenyl, furyl, thienyl or pyridyl.

59. The taxane of claim 58 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

60. The taxane of claim 58 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

61. The taxane of claim 58 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

62. The taxane of claim 58 wherein R₁₄ is hydrido.

63. The taxane of claim 62 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

64. The taxane of claim 62 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

65. The taxane of claim 62 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

66. The taxane of claim 58 wherein R_2 is benzoyloxy.
67. The taxane of claim 66 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
68. The taxane of claim 66 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
69. The taxane of claim 66 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
70. The taxane of claim 58 wherein R_{14} is hydrido and R_9 is keto.
71. The taxane of claim 70 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
72. The taxane of claim 70 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
73. The taxane of claim 70 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
74. The taxane of claim 58 wherein R_2 is benzoyloxy and R_9 is keto.
75. The taxane of claim 74 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
76. The taxane of claim 74 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

77. The taxane of claim 74 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

78. The taxane of claim 58 wherein R₁₄ is hydrido and R₂ is benzoyloxy.

79. The taxane of claim 78 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

80. The taxane of claim 78 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

81. The taxane of claim 78 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

82. The taxane of claim 58 wherein R₁₄ is hydrido, R₉ is keto, and R₂ is benzoyloxy.

83. The taxane of claim 82 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

84. The taxane of claim 82 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

85. The taxane of claim 82 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

86. The taxane of claim 82 wherein X₅ is -COOX₁₀ and X₁₀ is t-butyl.

87. The taxane of claim 86 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

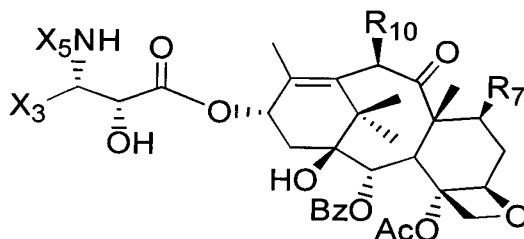
88. The taxane of claim 86 wherein X_3 is furyl or thienyl.

89. The taxane of claim 86 wherein X_3 is 2-furyl.

90. The taxane of claim 86 wherein X_3 is 2-thienyl.

91. The taxane of claim 86 wherein X_3 is cycloalkyl.

92. A taxane having the formula:



R_7 is hydroxy;

R_{10} is carbamoyloxy;

X_3 is substituted or unsubstituted alkyl, alkenyl, alkynyl, or heterocyclo,
5 wherein alkyl comprises at least two carbon atoms;

X_5 is $-COX_{10}$, $-COOX_{10}$, or $-CONHX_{10}$;

X_{10} is hydrocarbyl, substituted hydrocarbyl, or heterocyclo,

Ac is acetyl, and

Bz is benzoyl.

93. The taxane of claim 92 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

94. The taxane of claim 93 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-

pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

95. The taxane of claim 93 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

96. The taxane of claim 92 wherein X₃ is furyl or thienyl.

97. The taxane of claim 96 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

98. The taxane of claim 96 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

99. The taxane of claim 93 wherein X₃ is cycloalkyl.

100. The taxane of claim 99 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

101. The taxane of claim 99 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

102. The taxane of claim 93 wherein X₃ is isobutenyl.

103. The taxane of claim 102 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

104. The taxane of claim 102 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

105. The taxane of claim 92 wherein R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen and the other is $C_1 - C_8$ alkyl, phenyl or heterocyclo.

106. The taxane of claim 105 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

107. The taxane of claim 106 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

108. The taxane of claim 106 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

109. The taxane of claim 105 wherein X_3 is furyl or thienyl.

110. The taxane of claim 109 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

111. The taxane of claim 109 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

112. The taxane of claim 105 wherein X_3 is cycloalkyl.

113. The taxane of claim 112 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

114. The taxane of claim 112 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

115. The taxane of claim 105 wherein X_3 is isobutenyl.

116. The taxane of claim 115 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_2 - \text{C}_8$ alkenyl, or $\text{C}_2 - \text{C}_8$ alkynyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is substituted or unsubstituted $\text{C}_1 - \text{C}_8$ alkyl, $\text{C}_2 - \text{C}_8$ alkenyl, or $\text{C}_2 - \text{C}_8$ alkynyl.

117. The taxane of claim 115 wherein X_5 is $-\text{COX}_{10}$ and X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.

118. The taxane of claim 92 wherein X_3 is furyl or thienyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $\text{C}_1 - \text{C}_8$ alkyl, phenyl, or heterocyclo, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

119. The taxane of claim 92 wherein X_3 is substituted or unsubstituted furyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

120. The taxane of claim 92 wherein X_3 is substituted or unsubstituted furyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted phenyl or heterocyclo, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

121. The taxane of claim 92 wherein X_3 is substituted or unsubstituted thienyl, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

122. The taxane of claim 92 wherein X_3 is substituted or unsubstituted thienyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted phenyl or heterocyclo, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

123. The taxane of claim 92 wherein X_3 is substituted or unsubstituted phenyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a}

and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

124. The taxane of claim 92 wherein X_3 is substituted or unsubstituted phenyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted phenyl or heterocyclo, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

125. The taxane of claim 92 wherein X_3 is isobutenyl, one of R_{10a} and R_{10b} is hydrogen, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, the other of R_{10a} and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

126. The taxane of claim 92 wherein X_3 is alkyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, and X_5 is $-\text{COX}_{10}$ wherein X_{10} is phenyl, or X_5 is $-\text{COOX}_{10}$ wherein X_{10} is t-butyl.

127. The taxane of claim 92 wherein X_3 is 2-furyl or 2-thienyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is methyl, ethyl, or straight, branched or cyclic propyl, X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.

128. The taxane of claim 92 wherein X_3 is 2-furyl or 2-thienyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted phenyl or heterocyclo, X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.

129. The taxane of claim 92 wherein X_3 is cycloalkyl, R_{10} is $R_{10a}R_{10b}\text{NCOO}-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted phenyl or heterocyclo, X_5 is $-\text{COOX}_{10}$ and X_{10} is t-butyl.

130. A pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

131. The pharmaceutical composition of claim 130 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

132. The pharmaceutical composition of claim 131 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or
5 $C_2 - C_8$ alkynyl.

133. The pharmaceutical composition of claim 131 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

134. The pharmaceutical composition of claim 130 wherein R_{10} is $R_{10a}R_{10b}NCOO^-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted $C_1 - C_8$ alkyl, phenyl or heterocyclo.

135. The pharmaceutical composition of claim 134 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

136. The pharmaceutical composition of claim 135 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or
5 $C_2 - C_8$ alkynyl.

137. The pharmaceutical composition of claim 135 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

138. The pharmaceutical composition of claim 131 wherein X_3 is furyl or thienyl, R_{10} is $R_{10a}R_{10b}NCOO^-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $C_1 - C_8$ alkyl, phenyl or heterocyclo, and X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.

139. The pharmaceutical composition of claim 131 wherein X_3 is cycloalkyl, R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $C_1 - C_8$ alkyl, phenyl or heterocyclo, and X_5 is $-COX_{10}$ wherein X_{10} is phenyl, or X_5 is $-COOX_{10}$ wherein X_{10} is t-butyl.

140. The pharmaceutical composition of claim 131 wherein X_3 is substituted or unsubstituted phenyl, R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $C_1 - C_8$ alkyl, phenyl or heterocyclo, and X_5 is $-COX_{10}$ wherein X_{10} is phenyl, or X_5 is $-COOX_{10}$ wherein X_{10} is t-butyl.

141. The pharmaceutical composition of claim 131 wherein X_3 is isobutenyl, R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $C_1 - C_8$ alkyl, phenyl or heterocyclo, and X_5 is $-COX_{10}$ wherein X_{10} is phenyl, or X_5 is $-COOX_{10}$.

142. The pharmaceutical composition of claim 131 wherein X_3 is alkyl, R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is $C_1 - C_8$ alkyl, phenyl or heterocyclo, and X_5 is $-COX_{10}$ wherein X_{10} is phenyl, or X_5 is $-COOX_{10}$ wherein X_{10} is t-butyl.

143. A pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

144. A pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

145. A composition for oral administration comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

146. The composition of claim 145 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.

147. The composition of claim 146 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is

-COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

148. The composition of claim 146 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

149. The composition of claim 145 wherein R₁₀ is R_{10a}R_{10b}NCOO-, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted C₁ - C₈ alkyl, phenyl or heterocyclo.

150. The composition of claim 149 wherein X₃ is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

151. The composition of claim 150 wherein X₅ is -COX₁₀ and X₁₀ is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl, or X₅ is -COOX₁₀ and X₁₀ is substituted or unsubstituted C₁ - C₈ alkyl, C₂ - C₈ alkenyl, or C₂ - C₈ alkynyl.

152. The composition of claim 150 wherein X₅ is -COX₁₀ and X₁₀ is phenyl, or X₅ is -COOX₁₀ and X₁₀ is t-butyl.

153. A composition for oral administration comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

154. A composition for oral administration comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.

155. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 1 and at least one pharmaceutically acceptable carrier.

156. The method of claim 155 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
157. The method of claim 156 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
158. The method of claim 156 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
159. The method of claim 155 wherein R_{10} is $R_{10a}R_{10b}NCOO-$, one of R_{10a} and R_{10b} is hydrogen, the other of R_{10a} and R_{10b} is substituted or unsubstituted $C_1 - C_8$ alkyl, phenyl or heterocyclo.
160. The method of claim 159 wherein X_3 is 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
161. The method of claim 160 wherein X_5 is $-COX_{10}$ and X_{10} is substituted or unsubstituted phenyl, 2-furyl, 3-furyl, 2-thienyl, 3-thienyl, 2-pyridyl, 3-pyridyl, 4-pyridyl, $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl, or X_5 is $-COOX_{10}$ and X_{10} is substituted or unsubstituted $C_1 - C_8$ alkyl, $C_2 - C_8$ alkenyl, or $C_2 - C_8$ alkynyl.
162. The method of claim 160 wherein X_5 is $-COX_{10}$ and X_{10} is phenyl, or X_5 is $-COOX_{10}$ and X_{10} is t-butyl.
163. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 92 and at least one pharmaceutically acceptable carrier.

164. A method of inhibiting tumor growth in a mammal, said method comprising orally administering a therapeutically effective amount of a pharmaceutical composition comprising the taxane of claim 96 and at least one pharmaceutically acceptable carrier.